

Ministry of the Environment, Conservation and Parks Ministère de l'Environnement, de la Protection de la nature et des Parcs

ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER A-500-6097234137

Version: 2.0

Issue Date: June 27, 2025

Pursuant to section 20.3 of the *Environmental Protection Act*, Revised Statutes of Ontario (R.S.O.) 1990, c. E. 19 and subject to all other applicable Acts or regulations this Environmental Compliance Approval is issued to:

NOVA CHEMICALS CORPORATION

2100 - 250 5 ST SW CALGARY ALBERTA T2P0R4

For the following site:

285 Albert Street , Corunna, ST. CLAIR, ONTARIO, CANADA, NON 1G0

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s) A-500-6097234137 version 1.0, issued on August 12, 2021.

You have applied under section 20.2 of Part II.1 of the *Environmental Protection Act*, R.S.O. 1990, c. E. 19 (*Environmental Protection Act*) for approval of:

A polyethylene manufacturing facility, operating at a main process plant maximum production rate of 40 tonnes per hour of polyethylene and a pilot plant production rate of 240 kilograms per hour of polyethylene, consisting of the following major units and associated processes:

- · utilities unit;
- polymer unit;
- material flow unit;
- · finishing unit;
- · pilot plant;
- laboratory and maintenance operations;
- steam generation;

- blending, storage, transfer, loading and unloading of raw materials, intermediates and product streams;
- · hydrocarbon purification;
- water and wastewater treatment;
- purging, venting and pressure relief of process gases to the flare systems;
- standby power sources to support emergency operations;

Including the following sources of emissions:

Main Process Flare

- One (1) main flare stack operating at a volumetric flow rate of 3.2 normal cubic metres per second (smokeless) with an approximate heat release of 533,000 kilojoules per second, and a maximum design volumetric flow rate of 17.7 normal cubic metres per second with a corresponding heat release of 2,620,000 kilojoules per second, exhausting through a flare stack,
- A steam assisted flare tip, equipped with an arrester added to the bottom flange and a diameter of 0.61 metres, extending 76.2 metres above grade;

Containment Basin and Sewer Effluent Diversion System

- one (1) covered concrete containment basin for the emergency containment of sewer effluent, having a maximum volumetric capacity of 5, 124 cubic metres, discharging to the air through six (6) vents, each having an exit diameter of 0.25 metre and extending 3.05 metres above grade;
- one (1) sewer effluent diversion system, discharging to the air through four (4) vents, each having an exit diameter of 0.1 metre and extending 3.05 metres above grade;

Emergency Stripper Exhaust Stack

 One(1) Emergency Stripper Exhaust stack, designed to discharge into the atmosphere at a maximum volumetric flow rate of 1.06 actual cubic metres per second at an approximate temperature of 99 degrees Celsius, through a stack having an exit diameter of 0.15 metre, extending 41 metres above grade.

Equipment described in Tables 1 to 6 below:

Table 1: Fired Equipment

| Stack Id | Equipment ID & Description | Max. Fired Duty | Exhaust Flow Rate at Max Duty | Stack Exit Diameter | Stack Height Above Grade |
|----------|----------------------------|-------------------------|-------------------------------|------------------------|-----------------------------|
| | | (gigajoule per hour) | (cubic metre per second) | (metre) | (metre) |
| B3B5 | Boiler 3 | 52.8 | วว ว | 1.52 | 38.1 |
| כטכט | 22.2 Boiler 5 107.6 | | 1.52 | 36.1 | |
| B4 | Boiler 4 | 55.9 | 8.8 | 0.91 | 30.5 |
| B6 | Pilot Plant Boiler | 4.3 | 0.5 | 0.41 | 15.7 |
| VP1VP2 | Vapourizer 1 | 21.5 | 7.4 | 1.07 | 30.5 |
| VFIVFZ | Vapourizer 2 | 21.5 | 7.4 | 1.07 | 30.3 |
| VP4 | Vapourizer 4 | 21.5 | 4.2 | 1.52 | 30.5 |
| VP5 | Vapourizer 5 | 42.2 | 8.0 | 0.81 | 38.1 |

Table 2: Tanks

| ID | Equipment Description | Tank Type | Tank Capacity | Vent Inside Diameter | Vent Height Above Grade |
|-----|---|--------------------------------|------------------|-------------------------|----------------------------|
| ID | Equipment Description | тапк туре | (cubic meter) | (centimeter) | (metre) |
| T01 | Centre Storage Tank (With Two Vents) | Internal Floating Roof Tank | 75.7 | 5.08 and 20.32 | 7.3 |
| Т05 | North Storage Tank (With Two Vents) | Internal Floating Roof Tank | 189.3 | 5.08 and 20.32 | 7.3 |
| T11 | Cyclohexane Storage Tank | Vertical Fixed Roof Tank | 94.6 | 2.54 | 8.5 |
| T12 | PG Fatty Acid Tank | Vertical Fixed Roof Tank | 33.9 | 7.62 | 6.7 |
| T13 | Pentadione Tank | Vertical Fixed Roof Tank | 33.9 | 7.62 | 6.7 |
| T15 | Octene Storage Tank | Vertical Fixed Roof Tank | 7.1 | 15.24 | 4.9 |
| | | | | | |

| T16 Waste Storage Tank | Horizontal Tank | 18.9 | 10.16 | 6.7 |
|------------------------|-----------------|------|-------|-----|
|------------------------|-----------------|------|-------|-----|

Table 3: Main Plant Process Sources

| Stack Id Equipment ID & | | Stack Exit Diameter | _ | Stack Height Above Roof |
|---|--|---|---|---|
| Description | (cubic meter per second) | (metre) | (metre) | (metre) |
| Solution Adsorber Dust Collector Exhaust | 0.3 | 0.3 | 18.0 | N/A (not applicable) |
| Blender 6 Exhaust (stand by) | 1.3 | 0.9 | 19.2 | N/A |
| Blender 7 Exhaust (stand by) | 1.3 | 0.9 | 19.2 | N/A |
| Blender 9 Exhaust | 5.8 | 0.9 | 36.0 | N/A |
| Blender 10 Exhaust | 5.8 | 0.9 | 36.0 | N/A |
| Blender 11 Exhaust (unloading) | 5.8 | 0.9 | 36.0 | N/A |
| #3 Spin Dryer Exhaust | 1.9 | 0.5 | 11.6 | 5.2 |
| #4 Spin Dryer Exhaust | 1.9 | 0.5 | 11.6 | 5.2 |
| #3 Spin Dryer Downcomer Vent | 0.3 | 0.2 | 12.4 | 6.0 |
| #4 Spin Dryer Downcomer Vent | 0.3 | 0.2 | 12.4 | 6.0 |
| Rotary Feeder Vent | 0.1 | 0.2 | 6.1 | N/A |
| Slurry Water Hold-up Tank | 0.001 | 0.1 | 14.0 | 2.0 |
| Spin Dryer Hold Up Bin Vent | 0.1 | 0.2 | 6.6 | N/A |
| Stripper Exhaust - Cyclone | 1.0 | 0.9 | 54.3 | 42.3 |
| Stripper Spin Dryer Exhaust | 3.5 | 0.5 | 13.0 | 1.0 |
| | Solution Adsorber Dust Collector Exhaust Blender 6 Exhaust (stand by) Blender 7 Exhaust (stand by) Blender 9 Exhaust Blender 10 Exhaust Blender 11 Exhaust (unloading) #3 Spin Dryer Exhaust #4 Spin Dryer Exhaust #4 Spin Dryer Downcomer Vent #4 Spin Dryer Downcomer Vent Slurry Water Hold-up Tank Spin Dryer Hold Up Bin Vent Stripper Exhaust - Cyclone Stripper Spin Dryer | Equipment ID & DescriptionRate (cubic meter per second)Solution Adsorber Dust Collector Exhaust0.3Blender 6 Exhaust (stand by)1.3Blender 7 Exhaust (stand by)1.3Blender 9 Exhaust5.8Blender 10 Exhaust (unloading)5.8#3 Spin Dryer Exhaust *44 Spin Dryer Exhaust Vent1.9#3 Spin Dryer Downcomer Vent0.3Rotary Feeder Vent Slurry Water Hold-up Tank Vent0.001Spin Dryer Exhaust - Cyclone Stripper Exhaust - Cyclone1.0Stripper Spin Dryer3.5 | Description (cubic meter per second) (metre) Solution Adsorber Dust Collector Exhaust (stand by) Blender 6 Exhaust (stand by) Blender 7 Exhaust (stand by) Blender 9 Exhaust 5.8 0.9 Blender 10 Exhaust 5.8 0.9 Blender 11 Exhaust (unloading) #3 Spin Dryer Exhaust 1.9 0.5 #4 Spin Dryer Exhaust 1.9 0.5 #4 Spin Dryer Downcomer Vent 0.3 0.2 #4 Spin Dryer Downcomer Vent 0.1 0.2 Slurry Water Hold-up Tank 0.001 0.1 Spin Dryer Hold Up Bin Vent Stripper Spin Dryer 1.0 0.9 Stripper Spin Dryer Spin Dryer 1.0 0.9 Stripper Spin Dryer Spin Dryer 1.0 0.9 Stripper Spin Dryer 1.0 0.9 | Equipment ID & DescriptionRateDiameter (cubic meter) (metre)Above Grader (cubic meter)Solution Adsorber Dust Collector Exhaust0.30.318.0Blender 6 Exhaust (stand by)1.30.919.2Blender 7 Exhaust (stand by)1.30.919.2Blender 9 Exhaust5.80.936.0Blender 10 Exhaust5.80.936.0Blender 11 Exhaust (unloading)5.80.936.0#3 Spin Dryer Exhaust1.90.511.6#4 Spin Dryer Exhaust1.90.511.6#3 Spin Dryer Downcomer Vent0.30.212.4#4 Spin Dryer Downcomer Vent0.10.26.1Slurry Water Hold-up Tank (0.001)0.114.0Spin Dryer Hold Up Bin Vent0.10.26.6Stripper Exhaust - Cyclone1.00.954.3Stripper Spin Dryer3.50.513.0 |

| Stack Id | Equipment ID & | | / Stack Exit Diameter | _ | Stack Height Above Roof |
|----------|---|-----------------------------|--------------------------|---------|----------------------------|
| Stack Id | Description | (cubic meter per second) | (metre) | (metre) | (metre) |
| ST5 | Stripper Condensate Tank Vent | 0.001 | 0.1 | 16.0 | N/A |
| C1 | Additive G84 Hopper Cyclone | 0.4 | 0.4 | 14.5 | 7.0 |
| C2 | Additive S3 Hopper Cyclone | 0.4 | 0.5 | 14.5 | 7.0 |
| ADD1 | Additives Room Tank Vent | 0.005 | 0.3 | 18.0 | N/A |
| DC1 | Additive Room Dust Collector System | 0.4 | 0.2 | 10.1 | 3.8 |
| PH2 | Product Holdup Tank #2 Vent | 1.5 | 0.5 | 22.5 | 15.0 |
| SC1 | Scalperator #1 Cyclone | 2.7 | 0.9 | 17.3 | 9.7 |
| SC1A | Scalperator #1 Exhaust Cyclone | 5.5 | 0.6 | 11.9 | 4.3 |
| SC2 | Scalperator #2 Cyclone | 11.8 | 1.9 | 16.9 | 9.3 |
| SC2A | Scalperator #2 Exhaust Cyclone | 6.9 | 0.7 | 9.7 | 2.1 |
| SC3 | Scalperator #3 Cyclone | 11.8 | 1.9 | 16.4 | 8.9 |
| SC3A | Scalperator #3 Exhaust Cyclone | 9.1 | 0.8 | 9.9 | 2.3 |
| KICE | Scalperator #1 Exhaust Cyclone | 4.2 | 0.8 | 9.3 | N/A |
| SL001 | Silo - North Silo Elutriator Bag House | 3.4 | 0.7 | 5.9 | 2.9 |
| SL002 | Silo - North Silo Elutriator Cyclone | 0.5 | 0.7 | 13.2 | 3.4 |
| | | | | | |

| Stack Id Equipment ID & | | Exhaust Flow Rate | v Stack Exit Diameter | _ | Stack Height Above Roof |
|-------------------------|---|-----------------------------|--------------------------|---------|----------------------------|
| Stack Id | Description | (cubic meter per second) | (metre) | (metre) | (metre) |
| SL003 | Silo - South Silo Elutriator Bag House | 3.4 | 0.7 | 5.9 | 2.9 |
| SL004 | Silo - South Silo Elutriator Cyclone | 0.5 | 0.7 | 13.2 | 3.4 |
| SL101 | Silo #101 Vent | 1.2 | 0.3 | 17.4 | N/A |
| SL102 | Silo #102 Vent | 1.2 | 0.3 | 17.4 | N/A |
| SL103 | Silo #103 Vent | 1.2 | 0.3 | 17.4 | N/A |
| SL104 | Silo #104 Vent | N/A | 0.3 | 17.4 | N/A |
| SL105 | Silo #105 Vent | N/A | 0.3 | 17.4 | N/A |
| SL111 | Silo #111 Vent | N/A | 0.3 | 17.4 | N/A |
| SL112 | Silo #112 Vent | N/A | 0.3 | 17.4 | N/A |
| SL113 | Silo #113 Vent | N/A | 0.3 | 17.4 | N/A |
| SL114 | Silo #114 Vent | N/A | 0.3 | 17.4 | N/A |
| SL115 | Silo #115 Vent | N/A | 0.3 | 17.4 | N/A |
| SL131 | Silo Vent #131 | N/A | 0.3 | 17.4 | N/A |
| SL132 | Silo Vent #132 | N/A | 0.3 | 17.4 | N/A |
| SL133 | Silo Vent #133 | N/A | 0.3 | 17.4 | N/A |
| SL134 | Silo Vent #134 | N/A | 0.3 | 17.4 | N/A |
| SL135 | Silo Vent #135 | N/A | 0.3 | 17.4 | N/A |
| SL136 | Silo Vent #136 | N/A | 0.3 | 17.4 | N/A |
| SL137 | Silo Vent #137 | N/A | 0.3 | 17.4 | N/A |
| SL138 | Silo Vent #138 | N/A | 0.3 | 17.4 | N/A |
| | | | | | |

| Stack Id Equipment ID & | | Exhaust Flow Rate | v Stack Exit Diameter | _ | Stack Height Above Roof |
|-------------------------|----------------|-----------------------------|--------------------------|---------|----------------------------|
| Stack 1a | Description | (cubic meter per second) | (metre) | (metre) | (metre) |
| SL141 | Silo Vent #141 | N/A | 0.3 | 17.4 | N/A |
| SL142 | Silo Vent #142 | N/A | 0.3 | 17.4 | N/A |
| SL143 | Silo Vent #143 | N/A | 0.3 | 17.4 | N/A |
| SL144 | Silo Vent #144 | N/A | 0.3 | 17.4 | N/A |
| SL145 | Silo Vent #145 | N/A | 0.3 | 17.4 | N/A |
| SL146 | Silo Vent #146 | N/A | 0.3 | 17.4 | N/A |
| SL147 | Silo Vent #147 | N/A | 0.3 | 17.4 | N/A |
| SL148 | Silo Vent #148 | N/A | 0.3 | 17.4 | N/A |
| SL151 | Silo Vent #151 | N/A | 0.3 | 17.4 | N/A |
| SL152 | Silo Vent #152 | N/A | 0.3 | 17.4 | N/A |
| SL153 | Silo Vent #153 | N/A | 0.3 | 17.4 | N/A |
| SL154 | Silo Vent #154 | N/A | 0.3 | 17.4 | N/A |
| SL155 | Silo Vent #155 | N/A | 0.3 | 17.4 | N/A |
| SL156 | Silo Vent #156 | N/A | 0.3 | 17.4 | N/A |
| SL162 | Silo Vent #162 | N/A | 0.3 | 17.4 | N/A |
| SL163 | Silo Vent #163 | N/A | 0.3 | 17.4 | N/A |
| SL164 | Silo Vent #164 | N/A | 0.3 | 17.4 | N/A |
| SL165 | Silo Vent #165 | N/A | 0.3 | 17.4 | N/A |
| SL170 | Silo Vent #170 | N/A | 0.3 | 17.4 | N/A |
| SL171 | Silo Vent #171 | N/A | 0.3 | 17.4 | N/A |
| SL172 | Silo Vent #172 | N/A | 0.3 | 17.4 | N/A |
| | | | | | |

| Stack Id | Stack Id Equipment ID & | | v Stack Exit Diameter | _ | t Stack Height e Above Roof |
|----------|---|-----------------------------|--------------------------|---------|--------------------------------|
| Stack Iu | Description | (cubic meter per second) | (metre) | (metre) | (metre) |
| SL173 | Silo Vent #173 | N/A | 0.3 | 17.4 | N/A |
| SL174 | Silo Vent #174 | N/A | 0.3 | 17.4 | N/A |
| SL175 | Silo Vent #175 | N/A | 0.3 | 17.4 | N/A |
| LD01 | Loading - Box Filling Hopper Elutriator Cyclone | 0.2 | 0.4 | 15.3 | 7.8 |
| LD02 | Loading - Box Filling Hopper Elutriator Waste Cyclone | 5.6 | 0.5 | 11.1 | 3.6 |
| LD03 | Loading - Hopper Car Bin #41 Elutriator Cyclone | 0.4 | 0.5 | 17.6 | 8.6 |
| LD04 | Loading - Hopper Car Bin #42 Elutriator Cyclone | 0.4 | 0.5 | 17.6 | N/A |
| LD05 | Loading - Hopper Car Bin #43 Elutriator Cyclone | 0.4 | 0.5 | 17.6 | N/A |
| LD06 | Loading - Hopper Car Bin #51 Elutriator Cyclone | 0.4 | 0.5 | 19.2 | 10.2 |
| LD07 | Loading - Hopper Car Bin #52 Elutriator Cyclone | 0.4 | 0.5 | 19.2 | N/A |
| LD08 | Loading - Hopper Car Bin #53 Elutriator Cyclone | 0.4 | 0.5 | 19.2 | N/A |
| LD09 | Loading - Hopper Car Bin #54 Elutriator Cyclone | 0.4 | 0.5 | 19.2 | N/A |
| LD10 | Loading - Hopper Car Bin #55 Elutriator Cyclone | 0.4 | 0.5 | 19.2 | 10.2 |
| LD11 | Loading - Hopper Car Bin #56 Elutriator Cyclone | 0.4 | 0.5 | 19.2 | N/A |
| LD12 | Loading - Hopper Car Bin | 0.4 | 0.5 | 23.2 | N/A |

| Stack Id Equipment ID & | | Exhaust Flow Rate | / Stack Exit Diameter | _ | Stack Height Above Roof |
|-------------------------|---|-----------------------------|--------------------------|---------|----------------------------|
| | Description | (cubic meter per second) | (metre) | (metre) | (metre) |
| | #57 Elutriator Cyclone | | | | |
| LD13 | Loading - Hopper Car Bin #58 Elutriator Cyclone | 0.4 | 0.5 | 23.2 | N/A |
| LD14 | Loading - Hopper Car Bin # 41-43 Elutriator Waste Cyclone | 4.3 | 0.4 | 9.7 | 2.1 |
| LD15 | Loading - Hopper Car Bin # 51-54 Elutriator Waste Cyclone | 4.3 | 0.4 | 11.0 | 3.4 |
| LD16 | Loading - Hopper Car Bin # 55-58 Elutriator Waste Cyclone | 4.3 | 0.4 | 10.5 | 2.9 |
| LD17 | Loading - Truck Charge Hopper Cyclone | 0.2 | 0.4 | 15.3 | 6.3 |
| LD18 | Loading - Truck Charge Hopper Elutriator Cyclone | 7.4 | 0.5 | 9.1 | 1.5 |
| RC1 | Waste Recovery Rail Car Loading Filter | 0.4 | 0.2 | 11.7 | 4.2 |
| VH3 | Vacuum System Filter Hopper (34 Tonne) | 1.7 | 0.2 | 3.0 | 5.2 |
| VH4 | Vacuum System Filter Hopper (35 Tonne) | 1.3 | 0.2 | 3.0 | 6.2 |
| SMH01 | Vent on Sewer Manhole #1 | 0.002 | 0.1 | 3.0 | N/A |
| SMH02 | Vent on Sewer Manhole #2 | 0.002 | 0.1 | 3.0 | N/A |
| SMH03 | Vent on Sewer Manhole #3 | 0.002 | 0.1 | 3.0 | N/A |
| SMH05 | Vent on Sewer Manhole #5 | 0.002 | 0.1 | 3.0 | N/A |
| SMH07 | Vent on Sewer Manhole #7 | 0.002 | 0.1 | 3.0 | N/A |

| Stack Id | Description | Exhaust Flow Rate | Stack Exit Diameter | Stack Height Above Grade | Stack Height Above Roof |
|----------|---------------------------|-----------------------------|------------------------|-----------------------------|----------------------------|
| | | (cubic meter per second) | (metre) | (metre) | (metre) |
| SMH08 | Vent on Sewer Manhole #8 | 0.002 | 0.1 | 3.0 | N/A |
| SMH09 | Vent on Process Sewer Box | 0.002 | 0.3 | 9.1 | N/A |
| S1 | B Stripper Sump - 3" | 0.012 | 0.1 | 9.1 | N/A |
| S2 | B Stripper Sump - 8" | 0.1 | 0.2 | 4.6 | N/A |
| AB | B-Line Analyzer | 3.0E-05 | 0.5 | 20.0 | N/A |

Table 4: Pilot Plant Process Sources

| Stack Id | Equipment ID & | Exhaust Flow Rate | Stack Exit Diameter | Stack Height Above Grade | 9 |
|----------|---|----------------------|------------------------|-----------------------------|---------|
| Stack Iu | Description Description | | (metre) | (metre) | (metre) |
| PP01 | Batch Stripper A | 0.006 | 0.05 | 5.5 | N/A |
| PP02 | Batch Stripper B | 0.006 | 0.05 | 5.5 | N/A |
| PP03 | Batch Stripper Cyclone | 0.07 | 0.08 | 5.5 | N/A |
| PP04 | Common Vent of Pelletizer Spin Dryer and Hold-Up Bir | 0.18 | 0.10 | 8 | 1.5 |
| PP05 | Product Bins A & B | 0.013 | 0.08 | 8.7 | 2.2 |
| PP06 | Stripper Spin Dryer | 0.19 | 0.15 | 6.8 | 0.3 |
| PP07 | Truck Unloading | 0.02 | 0.02 | 4.5 | N/A |
| PP08 | Stripper Decanter | 0.004 | 0.03 | 6 | N/A |
| PP08B | Stripper Decanter | 0.05 | 0.05 | 18.5 | N/A |
| PP09 | Stripper Cyclone | 0.07 | 0.10 | 22.5 | N/A |
| S3 | Hydrocarbon Catchbasin (Pilot Plant) | 0.002 | 0.15 | 4.3 | N/A |

| S4 Pellet Water Sump (Pi Plant) | ot 0.002 | 1.5 | 0 | N/A |
|------------------------------------|----------|-----|---|-----|
|------------------------------------|----------|-----|---|-----|

Table 5: Back-Up Emergency Generators and Firewater Pumps

| Equipment Description | Size Rating (kilowatt) | Fuel Type |
|-------------------------------------|--|------------------------|
| Emergency Power Diesel Generator | 315 | Diesel |
| West Diesel Fire Water Pump | 224 | Diesel |
| East Diesel Fire Water Pump | 373 | Diesel |
| | Emergency Power Diesel Generator West Diesel Fire Water Pump | Emergency Power Diesel |

Table 6: Other Sources

| Stack ID Equipment Description | | | | |
|--------------------------------|--|--|--|--|
| BF1 | Burn Out Furnace Exhaust | | | |
| FH6 | Lab Fume Hood Exhaust Vent | | | |
| PPLB1 | General Physical Laboratory Exhaust Vent | | | |
| PPLB2 | Moisture Teller and Dust Collector Exhaust Vent | | | |
| PB1 | Touch Up Paint Booth Exhaust Vent | | | |
| SB1 | Sand Blaster/Wheelabrator Exhaust Vent | | | |
| W1 | Welding Fumehood Const. Fab Shop #0160 | | | |
| W2 | Welding Fumehood Const. Fab Shop #0160 | | | |
| W3 | Welding Fumehood Maint. Bldg. #1 | | | |
| W4 | Welding Fumehood Maint. Bldg. #1 | | | |
| W5 | Pilot Plant Welding Fumehood Bldg #504J | | | |
| | | | | |

| W6 | Welding Fumehood Warehouse Bldg #106 |
|-----|---|
| T06 | Diesel Fuel Storage Tank for fuelling emergency generator and firewater pumps |
| GST | Gasoline Storage Tank for fuelling onsite vehicles |
| SAP | Spent Alumina Pile Loading/Unloading/Erosion |
| PH1 | Product Holdup Tank #1 Cyclone |

all in accordance with the application for amendment of Environmental Compliance Approval (Air) No. A-500-6097234137, dated September 26, 2023 and signed by Richard Ilves, the Emission Summary and Dispersion Modeling Report, dated May 2023 and prepared by NOVA Chemicals Corporation, the Acoustic Assessment Report, dated July 9, 2020 and prepared by HGC Engineering, the Acoustic Audit Report, dated March 21, 2023 and prepared by GHD, and all supporting information associated with the application.

DEFINITIONS

For the purpose of this environmental compliance approval, the following definitions apply:

- 1. "Acoustic Assessment Report" means the report, prepared in accordance with Publication NPC-233 submitted in support of the application, that documents all sources of noise emissions and Noise Control Measures present at the Facility. "Acoustic Assessment Report" also means the Acoustic Assessment Report prepared by HGC Engineering, dated July 9, 2020 and signed by Corey Kinart, P. Eng.;
- 2. "Approval" means this Environmental Compliance Approval, including the application and supporting documentation listed above;
- 3. "Business Day" means any day other than a Saturday, a Sunday or a day on which the Sarnia District Office is closed for business;
- 4. "Company" means NOVA Chemicals Corporation that is responsible for the construction or operation of the Facility and includes any successors and assigns in accordance with section 19 of the EPA;
- 5. "District Manager" means the District Manager of the appropriate local district office of the Ministry, where the Facility is geographically located;

- 6. "EPA" means the Environmental Protection Act, R.S.O. 1990, c.E.19;
- 7. "Equipment" means the equipment described in the Company's application, this Approval and in the supporting documentation submitted with the application, to the extent approved by this Approval;
- 8. "Ethylene Action Plan" means the NOVA Chemicals St. Clair River Site- Ethylene Action Plan dated January 9, 2025, signed by Matt Kachler and prepared by the Company;
- 9. "Facility" means the entire operation located on the property where the Equipment is located;
- 10. "Increased Flaring" means any period of no less than six consecutive minutes during which the main process flare is flaring hydrocarbons at a rate of more than 25,000 kilograms per hour;
- 11. "Manual" means a document or a set of documents that provide written instructions to staff of the Company;
- 12. "Ministry" means the ministry of the government of Ontario responsible for the EPA and includes all officials, employees or other persons acting on its behalf;
- 13. "Noise Control Measures" means measures to reduce the noise emission from the Facility and/or Equipment including, but not limited to, silencers, acoustic louvers, enclosures, absorptive treatment, plenums and barriers. It also means the noise control measures outlined in the Acoustic Assessment Report;
- 14. "Provincial Officer" means the Provincial Officer appointed by the Minister under the EPA;
- 15. "Publication NPC-233" means the Ministry Publication NPC-233"Information to be Submitted for Approval of Stationary Sources of Sound", October 1995 as amended;
- 16. "Publication NPC-300" means the Ministry Publication NPC-300,"Environmental Noise Guideline, Stationary and Transportation Sources Approval and Planning, Publication NPC-300", August 2013, as amended;
- 17. "Sarnia District Office" means the Sarnia district office of the Ministry;

TERMS AND CONDITIONS

You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:

1. OPERATION AND MAINTENANCE

- 1. The Company shall ensure that the Equipment is properly operated and maintained at all times. The Company shall:
 - a. prepare, not later than three (3) months after the date of this Approval, and

update, as necessary, a Manual outlining the operating procedures and a maintenance program for the Equipment, including:

- i. routine operating and maintenance procedures in accordance with good engineering practices and as recommended by the Equipment suppliers;
- ii. emergency procedures, including spill clean-up procedures;
- iii. procedures for any record keeping activities relating to operation and maintenance of the Equipment;
- iv. all appropriate measures to minimize noise and odorous emissions from all potential sources; and
- v. the frequency of inspection and replacement of the filter material in the Equipment;
- b. implement the recommendations of the Manual.
- 2. The Company shall ensure that a pilot flame must be present and continuously monitored at all times when hydrocarbon is vented through the flare.
- 3. The Company shall operate the flare such that no emission into the air that obstructs the passage of light at any point by an average of more than 20 per cent, during a period of six consecutive minutes.
- 4. The Company shall establish, document and implement measures to ensure adequate combustion of gas in the flare.

2. RECORD RETENTION

- 1. The Company shall retain, for a minimum of two (2) years from the date of their creation, all records and information related to or resulting from the recording activities required by this Approval, and make these records available for review by staff of the Ministry upon request. The Company shall retain:
 - a. all records on the maintenance, repair and inspection of the Equipment; and
 - b. all records of any environmental complaints, including:
 - i. a description, time and date of each incident to which the complaint relates;
 - ii. wind direction at the time of the incident to which the complaint relates; and
 - iii. a description of the measures taken to address the cause of the incident to which the complaint relates and to prevent a similar occurrence in the future.

3. NOTIFICATION OF COMPLAINTS

- 1. The Company shall notify a Provincial Officer of the Sarnia District Office or the District Manager, in writing or verbally, of each environmental complaint within two (2) business days of the complaint. The notification shall include:
 - a. a description of the nature of the complaint; and
 - b. the time and date of the incident to which the complaint relates.

4. NOISE

- 1. The Company shall:
 - a. implement the Noise Control Measures as outlined in the Acoustic Assessment Report;
 - b. ensure, at all times, that the noise emissions from the Facility comply with the limits set in Ministry Publication NPC-300; and
 - c. ensure that the Noise Control Measures are properly maintained and continue to provide the acoustical performance outlined in the Acoustic Assessment Report.

5. CHANGE OF OWNERSHIP

- 1. The Company shall notify the Director in writing, and forward a copy of the notification to the District Manager, within thirty (30) days of the occurrence of any of the following changes to the Facility operations:
 - a. the ownership of the Facility;
 - b. the operator of the Facility;
 - c. the address of the Company;
 - d. the partners, where the Company is or at any time becomes a partnership and a copy of the most recent declaration filed under the *Business Names Act*, R.S.O. 1990, c. B.17, shall be included in the notification; or
 - e. the name of the corporation where the Company is or at any time becomes a corporation, other than a municipal corporation, and a copy of the most current information filed under the *Corporations Information Act*, R.S.O. 1990, c. C.39, shall be included in the notification.
- 2. In the event of any change in ownership of the Facility, the Company shall notify the successor of the existence of this Approval and provide the successor with a copy of this Approval, and the Company shall provide a copy of the notification to the District Manager and the Director.

6. NOTIFICATION OF PLANNED START-UP AND SHUTDOWN

The Company shall notify a Provincial Officer of the Sarnia District Office or the Spills Action Centre or the District Manager, at least twenty-four (24) hours prior to any planned shutdown or start-up.

7. ETHYLENE ACTION PLAN

- 1. The Company shall implement the Ethylene Action Plan in accordance with its terms.
- 2. The Company may update the Ethylene Action Plan from time to time with the written approval from the District Manager. The Company shall implement the updated Ethylene Action Plan following the written approval by the District Manager in accordance with its terms.

8. REVOCATION OF PREVIOUS APPROVALS

1. This Approval replaces and revokes all Certificates of Approval (Air) issued under section 9 EPA and Environmental Compliance Approvals issued under Part II.1 EPA to the Facility in regards to the activities mentioned in subsection 9(1) of the EPA and dated prior to the date of this Approval.

9. NOTIFICATION OF FLARING

- 1. The Company shall notify a Provincial Officer of the Sarnia District Office or the Spills Action Centre or the District Manager, at least twenty-four (24) hours prior to any planned shutdown or start-up that will result in Increased Flaring of the Main Process Flare at the Facility.
- 2. The Company shall notify a Provincial Officer of the Sarnia District Office or the Spills Action Centre or the District Manager of any Increased Flaring within one (1) hour of that event.

REASONS

The reasons for the imposition of these terms and conditions are as follows:

- 1. Condition No. 1 is included to emphasize that the Equipment must be maintained and operated according to a procedure that will result in compliance with the EPA, the Regulations and this Approval.
- 2. Condition No. 2 is included to require the Company to keep records and to provide information to staff of the Ministry so that compliance with the EPA, the Regulations and this Approval can be verified.
- 3. Conditions No. 3 and 6 are included to require the Company to notify staff of the Ministry

- so as to assist the Ministry with the review of the site's compliance.
- 4. Condition No. 4 is included to provide the minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the Facility.
- 5. Condition 5 is included to require the Company to notify/report to the Ministry so that compliance with the EPA, the regulations and this Approval can be verified.
- 6. Condition No. 7 is included to ensure the implementation of the Ethylene Action Plan
- 7. Condition No. 8 is included to identify that this Approval replaces all Section 9 Certificate(s) of Approval and Part II.1 Approvals in regards to the activities mentioned in subsection 9(1) of the EPA and dated prior to the date of this Approval.
- 8. Condition No. 9 is included to require the Company to notify staff of the Ministry so as to assist the Ministry with the review of the Facility's compliance.

APPEAL PROVISIONS

In accordance with Section 139 of the *Environmental Protection Act*, you may by written notice served upon me and the Ontario Land Tribunal, within 15 days after the service of this notice, require a hearing by the Tribunal. You must also provide notice to, the Minister of the Environment, Conservation and Parks in accordance with Section 47 of the *Environmental Bill of Rights*, 1993 who will place notice of your appeal on the Environmental Registry. Section 142 of the *Environmental Protection Act* provides that the notice requiring the hearing ("the Notice") shall state:

- 1. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
- 2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

Pursuant to subsection 139(3) of the *Environmental Protection Act*, a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

- 1. The name of the appellant;
- 2. The address of the appellant;
- 3. The environmental compliance approval number;
- 4. The date of the environmental compliance approval;
- 5. The name of the Director, and;
- 6. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

| Registrar* Ontario Land Tribunal 655 Bay Street, Suite 1500 Toronto, Ontario M5G 1E5 | and | The Minister of the Environment, Conservation and Parks 777 Bay Street, | and | The Director appointed for the purposes of Part II.1 of the <i>Environmental Protection Act</i> Ministry of the Environment, Conservation and Parks |
|--|-----|---|-----|---|
| OLT.Registrar@ontario.ca | | 5th Floor | | 135 St. Clair Avenue West, 1st |

Toronto, Ontario M7A 2J3

Floor Toronto, Ontario M4V 1P5

* Further information on the Ontario Land Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or 1 (866) 448-2248, or Ontario Land Tribunal's

This instrument is subject to Section 38 of the *Environmental Bill of Rights*, 1993, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at <u>Environmental Registry of Ontario</u>, you can determine when the leave to appeal period ends.

The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.

Dated at Toronto this 27th day of June, 2025

Nancy Orpana

Director

appointed for the purposes of Part II.1 of the Environmental Protection Act

c: Richard Ilves, NOVA CHEMICALS CORPORATION Matt Kachler, NOVA Chemicals Corporation Corey Kinart, HGC Engineering